

19 December 2000

MEMORANDUM FOR THE RECORD

From: CAPT M. J. Miller, USN

Subj: ADDITIONAL COMMENTS ON COLE DAMAGE CONTROL TRAINING

Tab: (A) Questionnaire
(B) CW04 Henry D. Brown memo of 7 Dec 00
(C) COLE Plans of Day from 8 Aug - 12 Oct 00 (FOUO)
(D) USS COLE 020600Z OCT 00 (SORTS 405) and USS COLE 090001Z (SORTS 407) (C)
(E) COLE Unit Training Readiness Status Report (prepared 12 Dec 00) (C)
(F) PNC Reling memo of 15 Dec 00
(G) COLE DCTT Briefs

1. As a part of the overall inquiry into the damage control efforts in USS COLE (DDG 67) after the bombing in Aden, Yemen on 12 October 2000, I was directed to conduct a review of the damage control efforts, the damage control training program and the personnel qualification standards. This summary of information is based on extensive interviews with COLE personnel conducted by CAPT Mike Miller, USN, and CW04 Henry D. Brown, USN, during a three-day period. Additionally, we performed background research into the ship's Damage Control Training Program and reviewed all available records. Based on the foregoing, the following is a discussion of COLE's Damage Control Training Program, The Personnel Qualification Standards of the crew and the action of the officers and crew in COLE during and after the explosion. Documented information that was available is included in the form of tabs to this memorandum.

2. During our discussions with COLE crewmembers concerning damage control actions taken subsequent to the 12 October attack, we found it useful to identify four general phases in building the event narrative that follows. These phases are linked to command decision points that helped us to put the crew's actions in context and provided perspective on the overall efforts of the command. They are:

a. Phase One - Actions taken to stabilize the ship immediately after the explosion;

b. Phase Two - Actions taken to identify and evacuate casualties while restoration from the initial explosion continued;

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c. Phase Three - Actions taken to recover from progressive flooding and loss of electrical power subsequent to initial damage control efforts; and

d. Phase Four - Actions taken to prepare the ship for movement from Yemen. As these actions also involved extensive industrial and technical support, the beginning of this phase provides a logical point at which to end the narrative.

3. Narrative sequence of events (all times local -3C): Prior to attack on COLE, she was moored starboard side to at Aden, Yemen at 0849 on 12 October 2000. Her mooring configuration consisted of six mooring lines, with head and stern lines passed to buoys, and spring lines to the fueling dolphin. All lines were doubled and she had an anchor dipped. No brow was across. Following mooring, COLE's material condition of readiness and engineering plant status were material condition Modified Zebra set with no exceptions (Damage Control Closure Log for 12 October 2000). NRs 2 and 3 SSGTGs were running in parallel with Planned Maintenance System under contemplation for the reduction gear on NR 1 SSGTG. The main engines were secured. The lube oil service systems were running fore and aft with the "A" pumps on line. Both main reduction gears were being jacked over. Both main fuel oil service systems were running with the "A" pumps on line. NRs 2 and 5 firepumps were running with material condition Yoke set on the firemain. The engineering plant control systems were aligned in normal mode with Central Control Station (CCS) in control of the engineering plant. There was a CCS watch assigned as well as an Inport Equipment Monitor (IEM) and a Sounding and Security Watch. The ship commenced refueling all six tank banks at 1031. At commencement of fueling, the ship had 37 percent (approximately 165,000 gallons) F-76 fuel onboard. Refueling was being managed from the oil lab with the Main Propulsion Assistant, [REDACTED], and two of the assigned oil kings in the space. At the time of the explosion, COLE had received 80,000 gallons and had filled one of the six tank banks. JP-5 (F-44) was at 90 percent capacity (18,000 gallons) and was not being received.

PHASE ONE

a. Immediate effects. The explosion occurred at 1118. Among the immediate effects, NR 2 SSGTG shut down; NR 3 SSGTG and switchboard remained in operation, providing electrical

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power to the after portion of the ship. The electrical fault current detection system activated, opening all bus tie breakers. NR 1 and 2 switchboards were deenergized. Interior communications lost included the Interior Voice Communications System (IVCS) and the ship's General Announcing System (1 MC). The Wireless Interior Communications System (WICS) remained intact and became the ship's primary interior communications, supplemented by 25 MC and the X5J casualty communications circuit. MER 1 and AMR 2 began flooding immediately, having free communication with the sea from the explosion hole centered at frame 220 port side. COLE achieved and maintained a three and a half to four degree port list nearly immediately, and trimmed by the bow an undetermined amount. The Data Multiplexing System (DMS) became unreliable, producing uncommanded cycling of motor-operated firemain valves and, in concert with explosion damage to firemain piping, contributing to a loss of firemain pressure. Air conditioning, chilled and potable water systems were rendered out of commission. Large quantities of fuel accumulated in MER 1, AMR 1 and AMR 2. Lighting was lost forward of CCS (Frame 220). The Propulsion Repair locker (Repair 5) was explosion-damaged and rendered unusable; however, damage control equipment in the locker was intact, except for ventilation and portable desmoking equipment stowed in the vicinity of the explosion. (The intact equipment was subsequently redistributed to Repairs 2 and 3, and personnel assigned to Repair 5 went to the other Repair Lockers to assist in the damage control effort.) An estimated 20 Self-contained Breathing Apparatuses (SCBA) stowed in the athwartships passageway near Repair 5 were destroyed. Loss of power forward rendered NR 1 Aqueous Film Forming Foam (AFFF) station inoperative. (AFFF was also lost ship-wide as a result of loss of firemain pressure.) Six life rafts stowed on the port side weather decks were blown overboard.

b. Personnel actions

(1) CDR Lippold, the Commanding Officer, was in his cabin when the attack occurred. Instinctively, he armed himself with a nine-millimeter pistol that he kept in his cabin, donned a flack jacket and proceeded to the Pilot House. On the way there he noted two personnel in the water, then a life ring and directed other crewmembers to recover them. Upon reaching the Pilot House, he attempted to determine the continued threat to the ship, and directed the weather decks secured to ship's company in order not to expose personnel to further attack. In

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the process, CDR Lippold noted several black inflatable boats in the water, subsequently identified as the liferafts that had been blown from the ship by the explosion and overturned, exposing their black bottoms. During the ensuing minutes, CDR Lippold received LCDR [REDACTED] damage report via WICS, contacted the port authorities on a hand-held Very High Frequency radio and in the absence of reliable external communications directed two EPRMs be put in the water.

(2) [REDACTED], the Executive Officer, was presiding over a meeting of the ship's Morale, Welfare and Recreation (MWR) Committee in the Ship's Training Room, located on the second deck, port side aft, when the explosion occurred. LCDR [REDACTED] recalled sensing the ship moving toward the starboard side, with an attendant violent vertical movement simultaneous with his hearing the explosion. He also sensed that the ship immediately began listing to port after the explosion occurred. As stated above, lighting in the after part of the ship remained operative. After the shaking ceased, LCDR Peterschmidt led the MWR Committee group (which also included [REDACTED], the Command Master Chief, and LTJG [REDACTED] the Auxiliaries Officer and Repair 5 Locker Officer) from the Training Room toward the mess deck, proceeding forward along the port side of the ship until he was stopped by heavy smoke presumed to be from the explosion materials. He reversed his direction and made his way past the After Battle Dressing Station (BDS) to the starboard side main deck passageway. There he encountered a convergence of personnel from inside the skin of the ship and from the weather decks. Those from inside appeared to be trying to make their way topside, and those from topside (six-10 personnel) were indicating that they had suffered ear damage through pointing gestures. LCDR [REDACTED] stated during the interview that his instincts told him that the ship had been attacked and, as he was uncertain as to whether the ship remained under attack, his immediate concern included ship security as well as damage control. Consequently, he immediately restored order in the starboard passageway, directing GM2 [REDACTED] to man the after deck gun topside, and directing other personnel in the passageway to man Repair 3, check/set material condition Zebra, and investigate for damage in MER 2. Acting on that direction, personnel began to react as trained, and LCDR [REDACTED] continued forward along the starboard side passageway. Noting several injured personnel (including GSMC(SW) [REDACTED] Leading

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Chief Petty Officer for R and MP Divisions and Assistant Damage Control Training Team (DCTT) leader) along his path, LCDR [REDACTED] observed SN [REDACTED] and others were administering first aid to the injured in that area. He directed that the starboard side passageway area between CCS and Main Medical become a staging/first aid/triage area. Main Medical was deemed to be inaccessible because of heavy smoke. (LCDR [REDACTED] commented he was unable to determine if there were any fires at this point.) After ensuring medical casualties were being attended to, LCDR [REDACTED] proceeded aft to CCS, where he established communications with the Commanding Officer in the Pilot House via WICS (after learning that IVCS and the LMC were inoperative) and assumed overall control of initial damage control efforts. LCDR [REDACTED] estimated the total time elapsed between the explosion and his arrival in CCS to be approximately 10 minutes.

(3) LT [REDACTED] the Chief Engineer, upon hearing the explosion and feeling the ship move, exited Officers' Country on the 02 level through the port side access en route to her CCS General Quarters station. LT [REDACTED] made her way as far as the port side breezeway and learned that CCS was inaccessible from that side. She then proceeded to the Bridge in order to gain a vantage point for conducting a quick exterior damage assessment and to receive any instructions from the Commanding Officer. Returning to her stateroom, she donned an Emergency Escape Breathing Device (EEBD) and made her way to CCS through the smoke via the starboard side passageway. Once therein, she conferred with the Executive Officer and directed controlling actions for the main propulsion plant while the Executive Officer concentrated on the damage control effort. Concerned about the potential for fire in MER 2, LT [REDACTED] directed isolation of that space and securing of flammable and combustible liquid systems pending completion of damage investigation.

(4) ENS [REDACTED], the Damage Control Assistant, was in the Filter Cleaning Shop on the 01 level port side at the time of the explosion. He made his way as far as the 01 level weather deck on the port side, crossed over to starboard, proceeding aft to the flight deck and accessing the starboard interior passageway via the starboard side airlock. From there he went forward to CCS (also Damage Control Central), his General Quarters station. He estimated arriving in CCS within three to four minutes of LCDR [REDACTED] or within 15 minutes

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of the explosion. By that time, the damage control organization was manning or had manned stations, and ENS [REDACTED] immediately began receiving verbal, face-to-face damage reports from investigators. Additionally, he was able to establish communications with Repair 3 via DC Wire-free Communications (WIFCOM).

(5) Our discussions left us with the impression that the ship was correctly equipped to cope with the primary effects of the explosion, that medical equipment and supplies were distributed correctly about the ship, available, and ship's force was trained to use them. In the immediate aftermath of the blast, there were numerous instances wherein ship's force personnel reacted quickly, correctly, and even heroically to remove injured shipmates from the debris, administer 'first aid, and prepare them for evacuation from the ship, all while damage control efforts continued. This list is by no means complete, but these are outstanding examples brought to our attention during the course of this inquiry.

(6) Immediately following the explosion, DC1 [REDACTED] HT1 [REDACTED] HT2 [REDACTED] DCFN [REDACTED] and DCFN [REDACTED] were all involved in evacuating the CPO Mess, the area of the greatest concentration of injured personnel. In order to gain access to the space, Petty Officer Regal knocked down a false bulkhead, then took charge of the initial effort to evacuate the wounded. Once all were rescued, this group assisted in the dewatering and shoring effort in AMR 1 and MER 2.

(7) OS2 [REDACTED] was also searching for survivors in the vicinity of the CPO Mess. Leading a group of four other rescuers through a small opening in the damaged port side, Petty Officer [REDACTED] noticed a critically injured crewman and immediately helped place him on a litter. Because of the extensive damage in the area and oil and debris on deck, he and his team were unable to maneuver the litter through the passageway. Recognizing the severity of the injury to his shipmate, Petty Officer [REDACTED] took the critically injured crewman in a fireman's carry and made his way through the damage to get the man to a place from which he could be evacuated to topside.

(8) BMC [REDACTED] was in the CPO Mess at the time of

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the explosion. Despite sustaining injuries to his leg and lungs, he made his way through the smoke and the debris to obtain an SCBA, then searched for survivors in the vicinity of the damaged mess line, guiding one to a battle dressing station. He then obtained emergency lighting from Repair 5 and returned to the CPO Mess to rescue several remaining personnel therein. Once the CPO Mess was evacuated, he reported to Repair 2 and assumed Damage Investigator duties and in the process safely evacuated several more personnel from spaces in the forward part of the ship.

(9) In the first 90 minutes following the attack, HMCM [REDACTED] rendered life saving medical treatment to more than twenty wounded shipmates, whose injuries ranged from lacerations to multiple fractures. He directed junior corpsmen and ship's company in life saving techniques, and personally prepared many injured crewmembers for evacuation to medical treatment facilities ashore.

(10) LTJG [REDACTED] went to Repair 2 immediately after the attack and directed DC efforts there until relieved by the Locker Leader. He then made his way to the Mess Deck to aid in rescue efforts there. With the assistance of others, he freed M53 [REDACTED] who had sustained multiple fractures to both legs and ankles, from the severely damaged Galley. Once she was evacuated safely, LTJG [REDACTED] returned to area of greatest damage and assisted in evacuating injured personnel from the CPO Mess and MER 1 access area.

(11) Now approximately 15-20 minutes following the explosion, triage was well underway in the starboard passageway and at the after BDS, initial casualty evacuation was in progress, personnel had manned General Quarters stations, at least to the extent that the damage control organization was functioning effectively, and key command personnel were coordinating the effort to save the ship. Immediate damage effects described above were reported to CCS within an estimated 20 minutes of the attack. The smoke that had filled the ship's interior along the main deck level, was dissipating rapidly (estimated through the explosion hole) and there was no evidence of fires burning inside the ship. Further investigation disclosed that the ship's refrigeration machinery room, pulper/shredder room, and dry provisions storeroom were flooding into AMR 2 (source of flooding could not be determined, but

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later suspected to be from damaged piping). AMR 1 was taking on manageable amounts of water through bleed air piping and leaking electrical bulkhead stuffing tubes. Furthermore, fuel in MER 1 from the GTG gravity feed tanks and the storage tanks was exiting the ship through the explosion hole, and constituted a severe internal fire hazard. In response, repair locker personnel commenced dumping five gallons cans of AFFF concentrate into MER 1 through a natural ventilation shaft and into AMR 2 through a hatch. (Neither ship's firemain nor power forward were yet restored, rendering the AFFF proportioning stations out of commission, and necessitating the inefficient, but effective, AFFF application.) Having taken steps to minimize the potential for fire, the main damage control effort began to focus on removing water from the ship: Repair parties rigged P-100 portable pumps to dewater AMR 1 and AMR 2.

PHASE TWO

(12) Personnel interviewed were in general agreement that COLE's designed resistance to damage and the crew's actions had stabilized the ship and stemmed further progressive damage within 20-30 minutes of the explosion. After assuming the approximately four degree port list resulting from the initial flooding, the ship did not list any further. Although electrical arcing and sparking had been observed in various spaces, no fires had been discovered. Smoke was clearing rapidly. Initial investigations had been conducted and damage reported. The damage control organization was intact and the crew functioning in an organized effort to restore the ship's basic systems and capabilities. With that effort underway, CDR Lippold and LCDR [REDACTED] were comfortable they could focus Command level attention more closely on triage and casualty evacuation.

(13) Subsequent to the explosion and his requesting assistance from the port authorities via the hand-held VHF radio, CDR Lippold was contacted by the U.S. Defense Attache, who had been inside the port area and hurried to where COLE was moored via small boat. Leaving CDR Lippold with a cellular phone (by which CDR Lippold made his initial OPREP-3 report to higher authority), the Defense Attache commenced coordinating casualty evacuation through embassy channels. These arrangements were completed approximately one hour after the explosion had occurred.

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(14) COLE had developed a preplanned mass casualty response that included triage sites on the mess deck and at the aft BDS. Circumstances were such that triage in the classical sense was not applicable, but the preplanned triage sites were nonetheless to be used to stabilize the injured and prepare them for evacuation off the ship. Because of the extensive damage to the mess deck and the ongoing restoration efforts, the forward triage area was initially established in the starboard side passageway near the Engineering logroom. When the Commanding Officer permitted personnel to access the weather decks, the triage areas were moved to the flight deck, with HMCM(SW/AW/FMF) [REDACTED] in charge, and to the starboard quarterdeck area, under the direction of HMC(SW) [REDACTED]. From those locations, non-ambulatory patients were placed in Stokes and SAR litters, lowered to the fueling dolphin by sliding them down the ship's brow, and placed in boats for transport to medical facilities ashore.

(15) Evacuation of the wounded and blood donors to accompany them to the hospital was accomplished within two hours. (Reportedly one hour and 39 minutes.) Meanwhile, personnel continued working to restore the ship from the explosion effects. Provision of sufficient water to cleanse wounds and to prevent dehydration in the 100-plus degree heat became a major concern. The emergency water supplies at the battle dressing stations were depleted almost immediately. The ship had procured bottled water during a port visit in France to store in the Repair lockers for use by damage control teams in anticipation of training in the hot conditions of the Arabian Gulf. This was rapidly consumed and the crew made do until bottled water could be provided from off the ship (the next day) by melting ice from the Wardroom Pantry ice maker, supplemented by a large stock of Gatorade that was broken out from the 's Store.

(16) By mid-afternoon, the crew had begun gaining ground on damage restoration. Firemain was restored to the aft starboard loop approximately one to one and a half-hours after the explosion. Electricians had set about the task of isolating components of the electrical distribution system, conducting detailed electrical damage investigation, and clearing grounds. They commenced rigging casualty power from NR 3 switchboard to radio in an attempt to restore off-ship communications, a task the crew reported as a challenge, as it had not recently practiced rigging casualty power and they discovered the damage

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control diagrams to be in error, slowing the process. A crew muster was completed by 1500, and looking to the evening ahead, the flight deck established as a temporary messing and berthing facility. Water remained a critical need and all the ship's galley food supplies had been lost. The evening meal consisted mainly of snacks broken out from the ship's store stock. Security lighting was rigged topside and personnel were afforded fitful rest in brief shifts.

(17) At 1825, MER 2's starboard side shaft bulkhead seal was reported to be leaking. The leak was immediately brought under control by plugging the seal using oakum and damage control wedges and dewatering begun using a P-100 pump. (An attempt to use the space eductor for dewatering failed due to system misalignment - a firemain valve (V-769) was closed in Berthing Four.)

(18) At 2213, the blow-in doors for NR 3 SSGTG opened and could not be closed because of lack of LP air. As an interim measure to prevent foreign object damage to the engine, ship's force installed Scott foam at the blow-in doors and continued to run the generator. SSGTG lube oil filters had also become clogged, and after shifting filters became clogged again. As there were no more filter elements available, the installed filters eventually had to be removed entirely in order to keep the engine supplied with lube oil, contaminated though it was.

(19) Efforts continued through the evening and the next day (13 October) to restore equipment shipwide, but concentrating in particular on MER 2. Equipment that had found its way about the ship during damage control and restoration, and identifying additional medical effects to personnel. By noon on 13 October, casualty power was rigged to the forward portion of the ship, the LMC General Announcing system was back in operation, installed lighting restored forward of frame 174, and temporary lighting rigged between frames 174 and 220 using the ship's friendship lights and extension cords. By early afternoon, air conditioning, potable water and CHT were restored to the after portion of the ship and air conditioning boundaries were established using damage control smoke curtains.

(20) On 14 October, U.S. and Allied assistance began to arrive on scene and COLE's material condition continued to improve through the crew's efforts. The U.S. Marine Corps FAST team arrived in the early morning hours and assumed security

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duties. Mobile Diving and Salvage Unit TWO's master diver commenced diving operations. HMS MARLBOROUGH arrived and provided water and AFFF in the morning, and USS HAWES (FFG 53) and USS DONALD COOK (DDG 75) were on scene in the afternoon, providing food, clothing, medical supplies, additional damage control gear and relief crews. COLE's power restoration effort continued and by 1931 the crew had rigged and energized casualty power from #3 switchboard to Load Center 11, enabling them to operate additional auxiliary equipment in the forward part of the ship, including vital auxiliaries in AMR 1. At 2100, a rise in the water level in AMR 2 was noted, and two additional PERI-jet eductors (for a total of five) were put in use to control flooding.

PHASE THREE

(21) At 0115 on 15 October, the watch stationed in MER 2 reported the leak at the starboard side shaft bulkhead seal to be approximately five gallons per minute. By 0130, the leak was reported to have increased to approximately 15 gallons per minute. The space eductor was placed in operation and at 0137, the Commanding Officer ordered Repairs 2 and 3 to be remanned in response to the increased flooding in AMR 2 and MER 2. By 0237, the flooding in AMR 2 reached the six-foot level in the escape trunk, but the source of the flooding remained undetermined.

(22) At 0305, the ship lost electrical power. NR 3 SSGTG, which had been on line continuously since the explosion, shut down from fuel starvation. With the generator's primary fuel supply unavailable after the explosion, ship's force had provided emergency fuel to the engine's gravity feed tank from the JP-5 transfer system, and had been refilling it based on estimated fuel consumption (the Fuel Control Console in the Oil Laboratory was lost in the explosion and there was no other means to monitor tank level.) Repeated attempts to restart the generator failed (discussed in detail elsewhere) and as a result, the ship would be without electrical power for nearly an entire day.

(23) Without electrical power, COLE was also without firemain, auxiliaries and hotel services. The water level in AMR2 continued to rise, and portable dewatering equipment was removed in order to secure the space and prevent progressive flooding. However, the increased pressure on AMR 2's bulkhead began to dislodge shoring that had been constructed around MER

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2's plugged bulkhead seal and the engine room water level also began to rise. Ship's force made an attempt to supply the ship's firemain from a riser on the fueling dolphin, but there was insufficient pressure to operate a PERI-jet to dewater MER 2.

(24) Next, ship's force attempted to rig two P-100 pumps in tandem in order to control MER 2 flooding, but could not do so, because there was no three inch to two-and-a-half inch reducer coupling available with which to mate suction and discharge lines between the two pumps. An attempt was then made to rig a PERI-jet in tandem with a P-100 in MER 2, but the arrangement was unable to overcome the static discharge head between the engineroom and the damage control deck overboard discharge valve. The P-100/PERI-jet arrangement was successful when ship's force removed an overboard valve in the engine room's upper level and cut a discharge hole through the ship's hull using a portable exothermal cutting unit (PECU). The tide turned when two air-driven pumps provided by HAWES and supplied with LP air from the pier were added to the effort. MER 2 dewatering was completed approximately 1600.

(25) With no HP air compressor available, leaks in the air system, and the start air flasks depleted from earlier failed attempts to start NRs 2 and 3 SSGTG, ship's force had early in the day improvised an alternative method of refilling the flasks. Using the diesel-powered SCBA air compressors, ship's force was able to recharge the flasks through their gage lines, using fittings supplied by the Navy divers on board.

(26) At 0005 on 16 October, COLE engineers were successful in starting NR 3 SSGTG. Within an hour, electrical power, firemain, CHT, seawater service and air systems were restored. Air conditioning was restored to its previous level of service by 0200.

PHASE FOUR

(27) With services restored to levels attained prior to the loss of NR 3 SSGTG, and having benefit of outside-the-lifelines help from MDSU TWO, U. S. Marine Corps FAST team, USS HAWES (FFG 53), USS DONALD COOK (DDG 75), U.S. Central Command and technical and law enforcement communities, COLE's subsequent efforts turned toward recovery of remains, continued

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restoration of equipment and preparing the ship for onward movement.

4. Damage Control Training Program. Our examination of COLE's Damage Control training program included discussions of the events of 12-17 October 2000 with the Executive Officer, Chief Engineer, Damage Control Assistant, Repair Locker Leaders, and key repair party and medical personnel; listening to the Navy Times interview of six additional personnel who played key roles in the damage control effort; review of SORTS and TRAREP data as was available; examination of the ship's Plan of the Day for 8 August through 12 October 2000; and a review of available Afloat Training Group (ATG) Norfolk's reports of damage control training conducted on COLE during the Inter-deployment Training Cycle. Our discussions were loosely based on the draft questionnaire at (Tab A).

a. USS COLE completed the Basic Phase of its Inter-Deployment Training Cycle (IDTC) in December 1999, with Final Evaluation Problem being conducted in November 1999 during her ISIC's (COMDESRON 22) Group Sail. Damage Control training continued through IDTC Intermediate and Advanced phases with ATG Norfolk Limited Team Training visits, individual Fire Fighting Schools, Team Fire Fighting Schools, Helicopter Fire Fighting School, and an aggressive onboard training schedule. During an ATG Norfolk - supported LTT concluded 1 March 2000, the ship's Damage Control Training Team (DCTT) was also identified as requiring improvement in level of Chemical, Biological and Radiological Defense (CBRD) knowledge and motivation (Tab B), the ship's Chief Damage Controlman billet had been gapped for more than a year, the command assigned GSMC(SW) [REDACTED] as R Division Leading Chief Petty Officer and Assistant DCTT Leader in order to improve the damage control training effectiveness. Areas self-assessed as requiring improvement upon COLE's 8 August 2000 deployment were CBRD and Main Space fire fighting. In view of that assessment, a relatively high personnel turnover since completion of IDTC Basic Phase, and in anticipation of Arabian Gulf operations, the Command placed a high priority on back-to-basics, realistic, hands-on damage control training during its Atlantic and Mediterranean transits.

b. With LCDR [REDACTED] and GSMC(SW) [REDACTED] providing the impetus, COLE's ship-wide damage control training was revitalized. While deployed, the weekly training regimen featured a damage control day that included repair locker

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training emphasizing individual and team hands-on skills development in the morning and a DCTT or ITT scenario in the afternoon (Tab C). According to personnel interviewed, as a result of the hands-on approach, individual and team enthusiasm for the training developed into a healthy and synergistic competitiveness between repair parties and teams. Damage control competitions became a regular training feature, and on one occasion during transit, SIMPSON's teams were even invited to COLE to participate in an inter-ship competition (Tab C).

c. Following the Atlantic crossing, COLE's damage control training further intensified during transits between Mediterranean port visits, typically conducted over weekends. The usual practice was to conduct repair locker training, again stressing individual hands-on skills, on Fridays, training the entire damage control organization with a DCTT-led effort on Saturdays, and culminating the training with a ship-wide ITT-led scenario on Sundays (Tab C).

d. COLE'S DCTT was assessed to be effective and demonstrated steady improvement over the course of ATG Norfolk - supported visits conducted during the IDTC Basic Phase (ATG Visit Reports, (Tab B)).

e. COLE reported herself C-1 in the Training Resource area as of 12 October (Tab D).

f. During her Atlantic and Mediterranean transits, COLE's damage control training included drills that helped prepare the damage control organization to combat the damage sustained on 12 October. The following were extracted from COLE's Unit Training Report #49 (Tab E):

- (1) Main Space Flooding conducted 23 Aug 00
- (2) Major Fuel Oil Leak conducted 29 Sep 00
- (3) Main Space Fire Drill conducted 28 Sep 00
- (4) Class "C" Fire in Switchboard conducted 23 Aug 00
- (5) Loss of EPCC conducted 17 Sep 00
- (6) MOB-D-3-SF Man Battle Stations conducted 29 Sep 00
- (7) MOB-D-4-SF Emergency Interior Communications
conducted 24 Aug 00
- (8) MOB-D-5-SF Topside Damage conducted 29 Sep 00
- (9) MOB-D-8-SF Mass Conflagration conducted 9 Sep 00
- (10) MOB-D-11-SF Setting Material Conditions conducted
29 Sep 00

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(11) MOB-D-12-SF Underwater Hull Damage conducted
15 Aug 00

(12) MOB-D-13-SF Shoring conducted 19 Sep 00

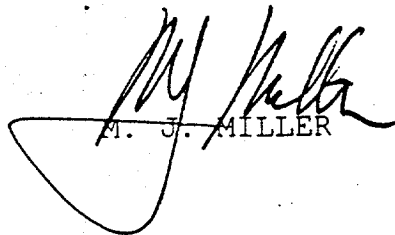
(13) MOB-D-14-SF Fire Extinguishing/Smoke Clearance
conducted 23 Sep 00

(14) MOB-D-20-SF Isolate/Patch Damage conducted 19 Sep 00

g. Basic damage control training was an element of "I" Division in COLE, as was First Aid and EEBD training. Due to a high turn over of crew since IDTC Basic Phase completion (38.6%, Tab F) and large number of personnel who reported to the ship within two weeks of deployment (approximately 20); the ship went back to the basics in its damage control training, and conducted damage control "I" Division during transit in addition to team training evolutions (Tab C).

h. COLE routinely conducted damage control training that included loss of communications. According to interviews, it was ship's practice to impose communications losses during each DCTT/ITT scenario, one system at a time. When the explosion occurred, loss of power rendered the IMC and IVCS inoperative. WIFCOM was available only in the Repair 3 area. The ship compensated by using WICS, messengers and X5J.

i. Damage Control training in COLE can only be assessed as effective, based on crew performance following the 12 October attack. Immediately following the explosion the crew responded as it had been trained. By all accounts its efforts contained the initial damage caused by the explosion and minimized the loss of life. With few exceptions, the damage control equipment performed effectively. A report of stable conditions and extent of damage reached the Pilot House within 20 minutes of the explosion.


M. J. MILLER